



Science Toolkit: Grade 8 Objective 1.C.1.b

Student Handout: Science: Grade 8 Objective 1.C.1.b

Standard 1.0 Skills and Processes

Topic C. Communicating Scientific Information

Indicator 1. Develop explanations that explicitly link data from investigations conducted, selected readings and, when appropriate, contributions from historical discoveries.

Objective b. Interpret tables and graphs produced by others and describe in words the relationships they show.

Selected Response (SR) Item

Question

During an investigation, students were given chemical data for several common household products, as shown in the data table below. Students were to determine if a substance was an acid or base by using litmus paper. Litmus paper turns red in an acid and turns blue in a base.

Substance	Color of Solution	Melting Point (°C)	Boiling Point (°C)	Soluble in Water	Odor	Litmus Paper Test
Carpet cleaner	Clear	0	100	Yes	Weak	Blue
Vinegar	Clear	-2	118	Yes	Strong	Red
Oven cleaner	Clear	-1	93	Yes	Weak	Blue
Bleach	Clear, light yellow	0	100	Yes	Strong	Blue

Which conclusion is supported by the data from the investigation?

- A. Many cleaning supplies are soluble in water.
- B. Cleaning solutions with a weak odor are acids.
- C. Water is the main ingredient in many cleaning supplies.
- D. A substance changes from a gas to a liquid as the temperature of the substance increases.

Correct Answer

- A. Many cleaning supplies are soluble in water.

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